



**Equipment Engineering and Quality Assurance
Technical Specification**

**Specification:
EE&QA-886**

OCS Inspection Car Consist Procurement

Appendix D: Clearance Diagrams

Page: -

Date: December 19, 2017

Revised: November 25, 2020

Revision: 2.0

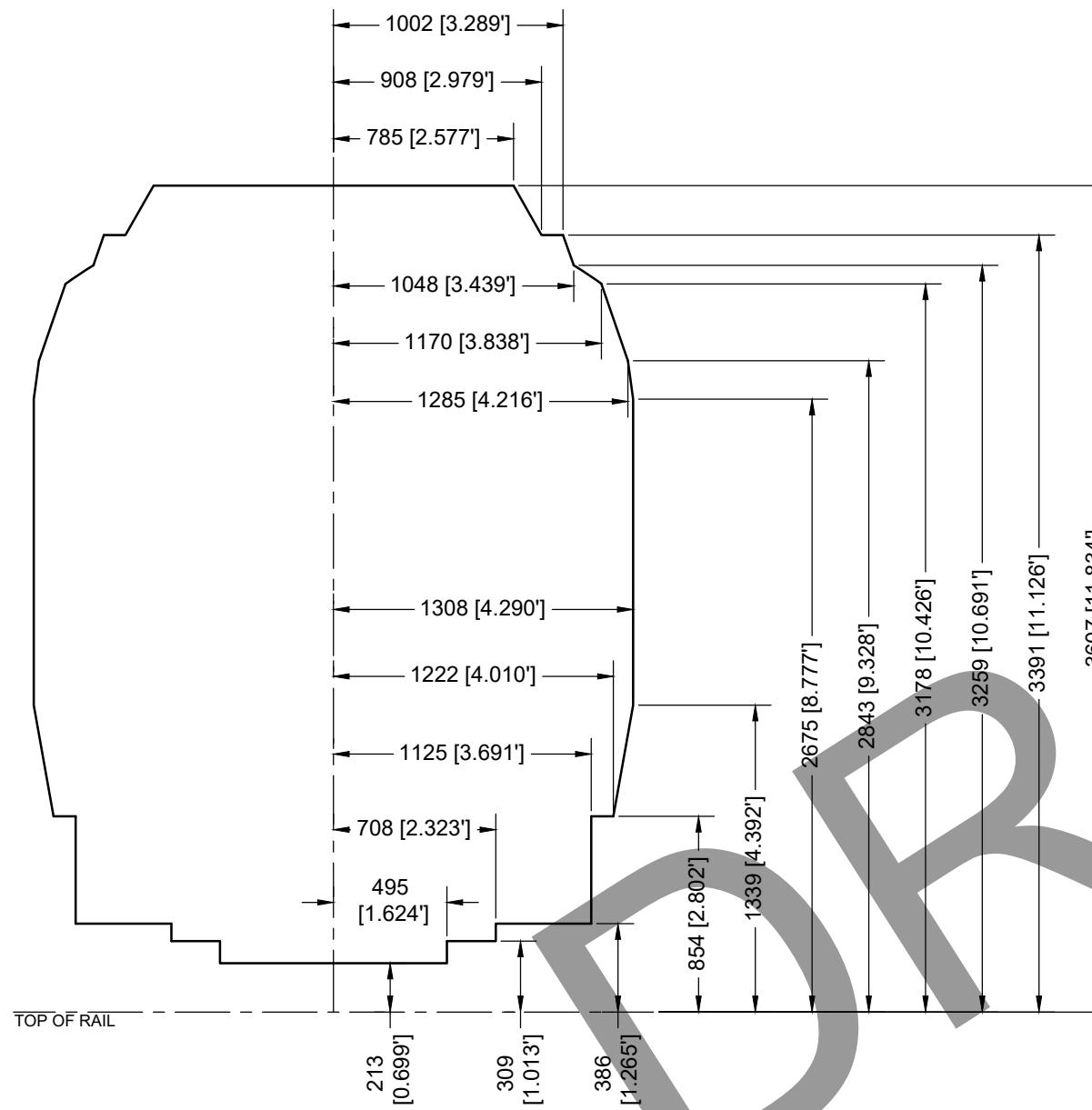
Appendix D

Clearance Diagrams

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REVISIONS

DWG. NO.	REV.	DESCRIPTION	DWN. BY	APP'D	DATE
	0.1	DRAFT RELEASE	MVS	-	06/18/20



DRAFT

NOTES:

- CARBODY, WIRE MAINTENANCE LIFTS (STOWED), AND ALL CARBODY-MOUNTED EQUIPMENT MUST REMAIN WITHIN STATIC CLEARANCE ENVELOPE AT EMPTY WEIGHT, WITH NEW WHEELS, AND WHEELSETS CENTERED ON THE TRACK.

UNLESS OTHERWISE SPECIFIED PRIMARY DIMENSIONS ARE IN MILLIMETERS AND SECONDARY DIMENSIONS ARE IN FEET

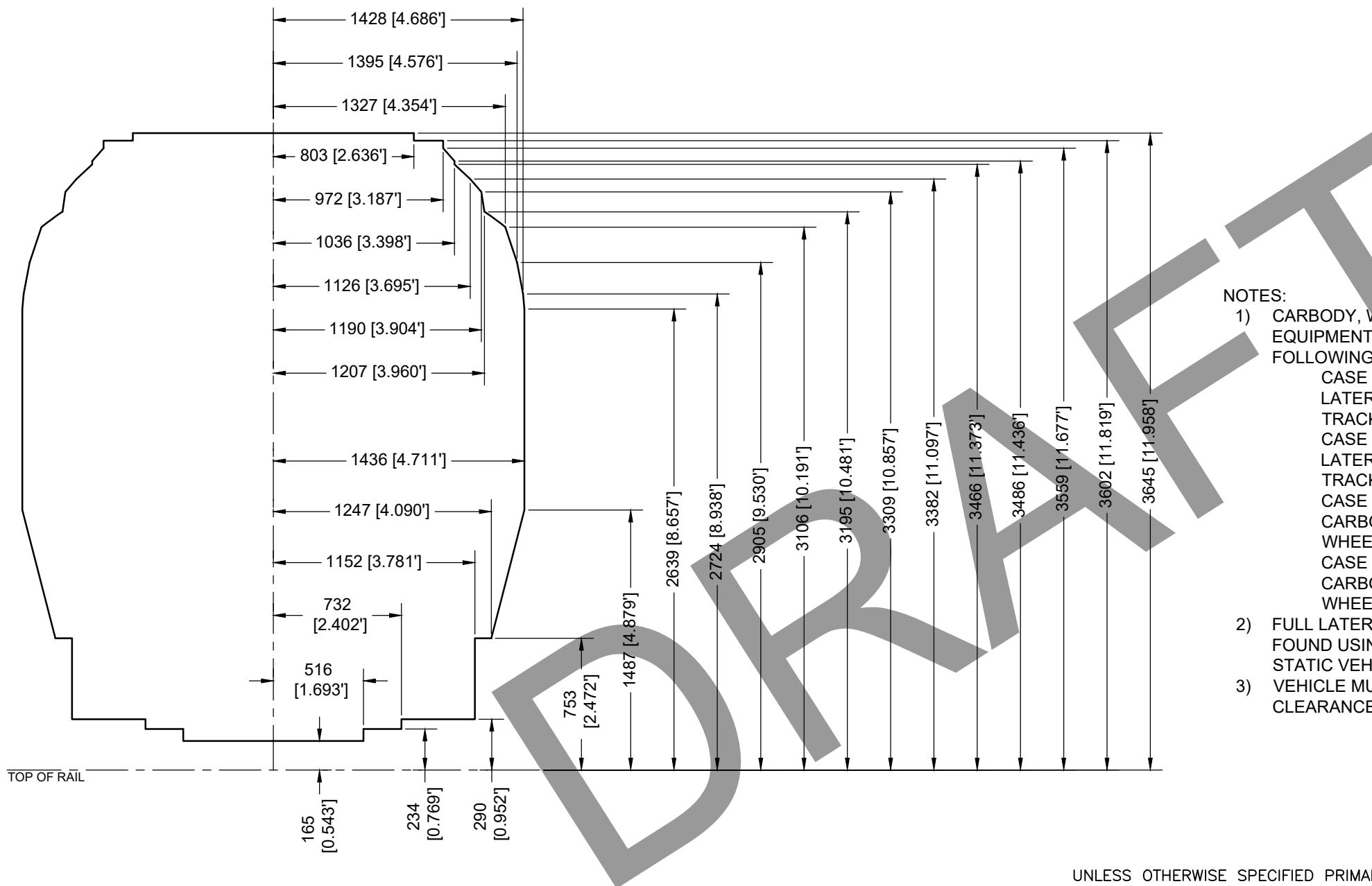
TOLERANCES: UNLESS OTHERWISE SPECIFIED					MASSACHUSETTS BAY TRANSPORTATION AUTHORITY		
USED ON					DRAWN	MVS	TITLE: OCS CAR STATIC ENVELOPE FOR CARBODY CLEARANCE
NEXT ASS'Y					CHECKED	NBE	
DRAWN					ENGINEER	-	SIZE: B DWG. NO. XXXXX REV. 0.1
CHECKED					APPROVED	-	
SCALE 1:30					DATE 06/18/2020	SHEET 1 OF 1	

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REVISIONS

DWG. NO.

REV.	DESCRIPTION	DWN. BY	APP'D	DATE
0.1	DRAFT RELEASE	MVS	-	06/18/20



NOTES:

- 1) CARBODY, WIRE MAINTENANCE LIFTS (STOWED), AND ALL CARBODY-MOUNTED EQUIPMENT MUST REMAIN WITHIN DYNAMIC CLEARANCE ENVELOPE UNDER THE FOLLOWING CASES:
 - CASE 1: EMPTY WEIGHT, SUSPENSION NOMINAL, CARBODY ROLL DUE TO FULL LATERAL ACCELERATION, NEW WHEELS, WHEELSETS CENTERED ON THE TRACK.
 - CASE 2: FULLY LOADED, SUSPENSION NOMINAL, CARBODY ROLL DUE TO FULL LATERAL ACCELERATION, NEW WHEELS, WHEELSETS CENTERED ON THE TRACK.
 - CASE 3: EMPTY WEIGHT, FAILURE OF ANY ONE SUSPENSION COMPONENT, CARBODY ROLL DUE TO FULL LATERAL ACCELERATION, NEW WHEELS, WHEELSETS CENTERED ON THE TRACK.
 - CASE 4: FULLY LOADED, FAILURE OF ANY ONE SUSPENSION COMPONENT, CARBODY ROLL DUE TO FULL LATERAL ACCELERATION, NEW WHEELS, WHEELSETS CENTERED ON THE TRACK.
- 2) FULL LATERAL ACCELERATION IS THE LARGER OF THE MAXIMUM ACCELERATION FOUND USING DYNAMIC SIMULATIONS OR THE ACCELERATION EXPERIENCED BY A STATIC VEHICLE ON TRACK WITH THE MAXIMUM SUPERELEVATION.
- 3) VEHICLE MUST ALSO PROVIDE A MINIMUM OF 89MM LATERAL AND 76MM VERTICAL CLEARANCE FROM THE THIRD RAIL UNDER ALL VEHICLE AND TRACK CONDITIONS.

UNLESS OTHERWISE SPECIFIED PRIMARY DIMENSIONS ARE IN MILLIMETERS AND SECONDARY DIMENSIONS ARE IN FEET

TOLERANCES: UNLESS OTHERWISE SPECIFIED					MASSACHUSETTS BAY TRANSPORTATION AUTHORITY		
USED ON					DRAWN MVS	TITLE: OCS CAR DYNAMIC ENVELOPE FOR CARBODY CLEARANCE	
NEXT ASS'Y	CHECKED NBE		ENGINEER -	APPROVED -			
	DRAWN MVS						
SCALE 1:30	APPROVED -		SCALE 1:30	DATE 06/18/2020	SIZE B	DWG. NO. XXXXX	REV 0.1
	DATE 06/18/2020						

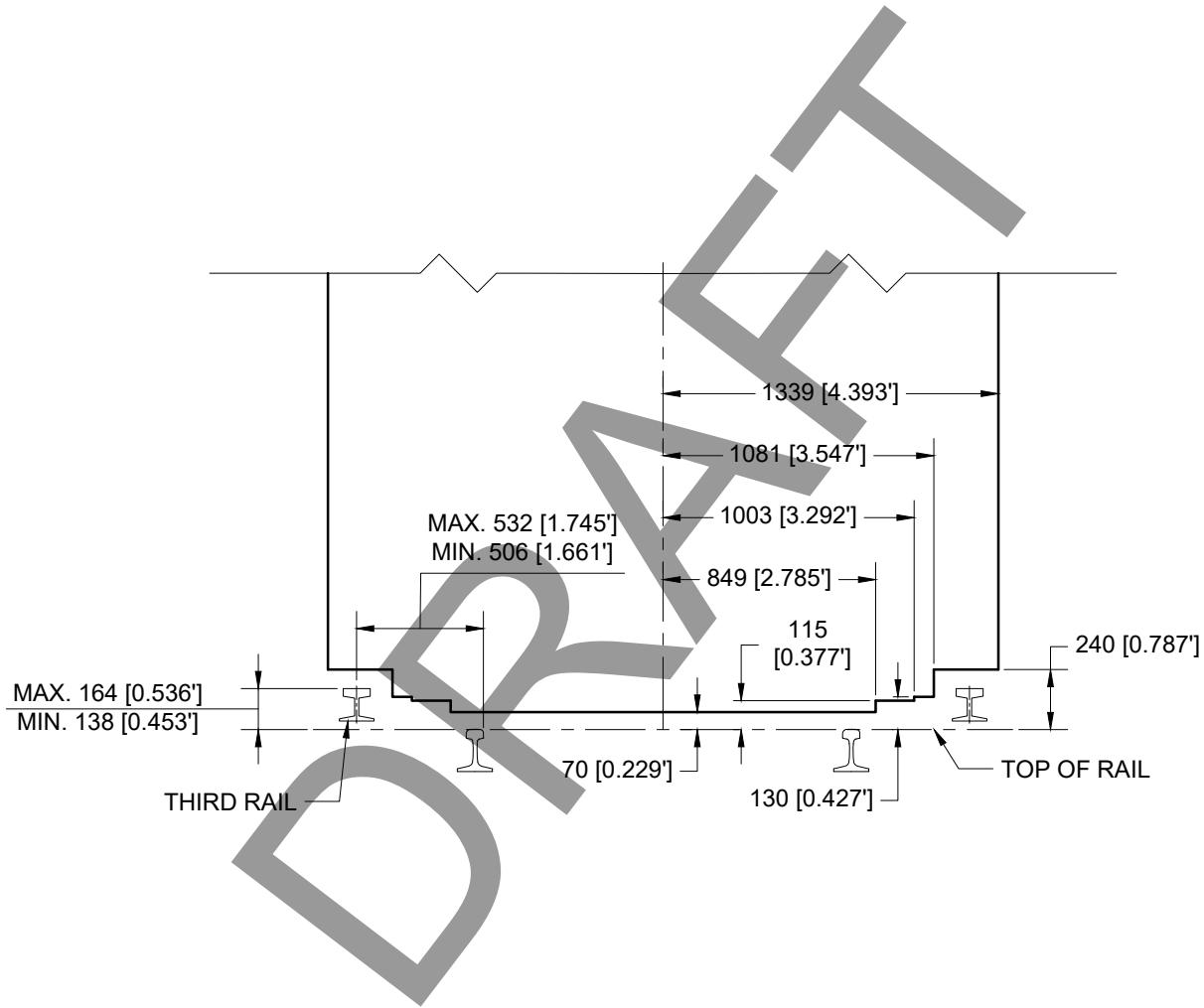
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REVISIONS

DWG. NO.

DRAWN BY LTK ENGINEERING
SERVICES UNDER MBTA
CONTRACT V93PS01.

REV.	DESCRIPTION	DWN. BY	APP'D	DATE
0.1	DRAFT RELEASE	MVS	-	06/19/20



UNLESS OTHERWISE SPECIFIED PRIMARY DIMENSIONS ARE IN MILLIMETERS AND SECONDARY DIMENSIONS ARE IN FEET

TOLERANCES:
UNLESS OTHERWISE SPECIFIED



MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

USED ON

DRAWN

MVS

TITLE:

OCS CAR
DYNAMIC ENVELOPE FOR
TRUCK CLEARANCE

NEXT ASS'Y

CHECKED

NBE

ENGINEER

-

APPROVED

-

SCALE

1:30

SIZE

A

DWG. NO.

XXXXX

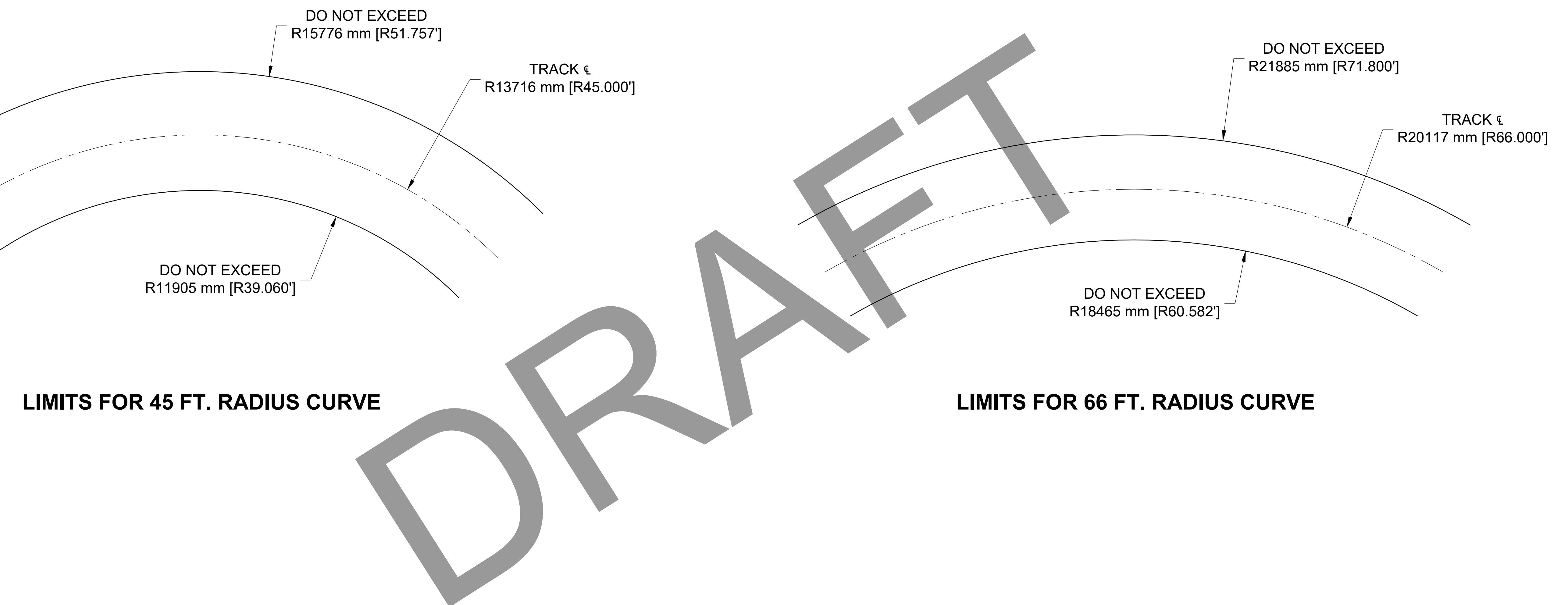
REV

0.1

06/19/2020

SHEET 1 OF 1

8	7	6	5	4	3	2	1			
XXXXX					XXXXXX		REVISIONS			
DWG. NO.					DWG. NO.	REV.	DESCRIPTION	DWN. BY	APP'D	DATE
						0.1	DRAFT	MVS	-	06/19/20
						0.2	DRAFT - CHANGED CURVE RADIUS FROM 42' TO 45'	NBE	-	10/05/20



NOTES:

- 1) VEHICLE MUST REMAIN WITHIN THE LIMITS SHOWN WHEN TRaversing TRACK WITH THE SPECIFIED CURVE RADIUS AND NO SUPERELEVATION.
- 2) EVALUATE UNDER STATIC CONDITIONS, WITH WHEELSETS CENTERED ON THE TRACK.
- 3) VEHICLE MUST ALSO PROVIDE A MINIMUM OF 89MM LATERAL AND 76MM VERTICAL CLEARANCE FROM THE THIRD RAIL UNDER ALL VEHICLE AND TRACK CONDITIONS.

DRAWN BY LTK ENGINEERING SERVICES UNDER MBTA CONTRACT V93PS01.

TOLERANCES: UNLESS OTHERWISE SPECIFIED			MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
USED ON	DRAWN	MVS	TITLE:	
	CHECKED	NBE	OCS CAR	
NEXT ASS'Y	ENGINEER	-	HORIZONTAL CURVE	
	APPROVED	-	INSCRIPTION LIMITS	
SCALE	1:75		SIZE	DWG. NO.
DATE	10/05/2020		D	XXXXXX
				REV.
				0.2

SHEET 1 OF 1